COMMONWEALTH OF MASSACHUSETTS HEALTH POLICY COMMISSION

Selected Findings from the 2014 Cost Trends Report

December 17, 2014



Legislative mandate for HPC's annual cost trends report

Section 8g of Chapter 224 of the Acts of 2012

The commission shall compile an annual report concerning spending trends and underlying factors, along with any recommendations for strategies to increase the efficiency of the health care system. The report shall be based on the commission's analysis of information provided at the **hearings** by providers, provider organizations and insurers, registration data collected under section 11, data collected by the Center for Health Information and Analysis under sections 8, 9 and 10 of chapter 12C and any other information the commission considers necessary to fulfill its duties under this section, as further defined in regulations promulgated by the commission. The report shall be submitted to the chairs of the house and senate committees on ways and means and the chairs of the joint committee on health care financing and shall be published and available to the public not later than December 31 of each year. The report shall include any legislative language necessary to implement the recommendations.

Required outputs

- **Annual report concerning spending** trends and underlying factors
- Recommendations for strategies to increase efficiency
- Legislative language necessary to implement recommendations

Data inputs

- **Hearings**
- **Registration data**
- **CHIA** data
- Any other information necessary to fulfill duties

Agenda

- HPC presentation
 - Select findings concerning spending trends and underlying factors from the 2014 Cost Trends Report
- Board discussion
 - Significance of findings
 - Recommendations for inclusion in the final report



Agenda

- HPC presentation
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Select findings from the 2014 Cost Trends Report

Overview of spending and the delivery system



Opportunities to improve quality & efficiency



Progress in key areas





Preview: presentation themes / potential areas for recommendations

- Understanding MA spending trends relative to the benchmark and the U.S.
- Shifting care to efficient and community settings
- Improving care for patients with behavioral health conditions
- Advancing alternative payment methods, including episode-based payment
- Engaging employers and consumers in value-oriented choices for care and coverage
- Enhancing transparency, accountability and data

Select findings from the 2014 Cost Trends Report

Overview of spending and the delivery system



Opportunities to improve quality & efficiency

Progress in key areas

Performance vs. benchmark

Spending trends 2012 - 2013 2009 - 2013

Delivery system trends

Future outlook



Spending trends

Previous findings

- Over the past decade, Massachusetts health care spending grew faster than the national average, driven by faster growth in commercial prices.
- By 2009, spending per capita was 36% higher than the national average, making Massachusetts the highest in the U.S.

The HPC set the 2013 target growth rate in per-capita health care spending at 3.6%.

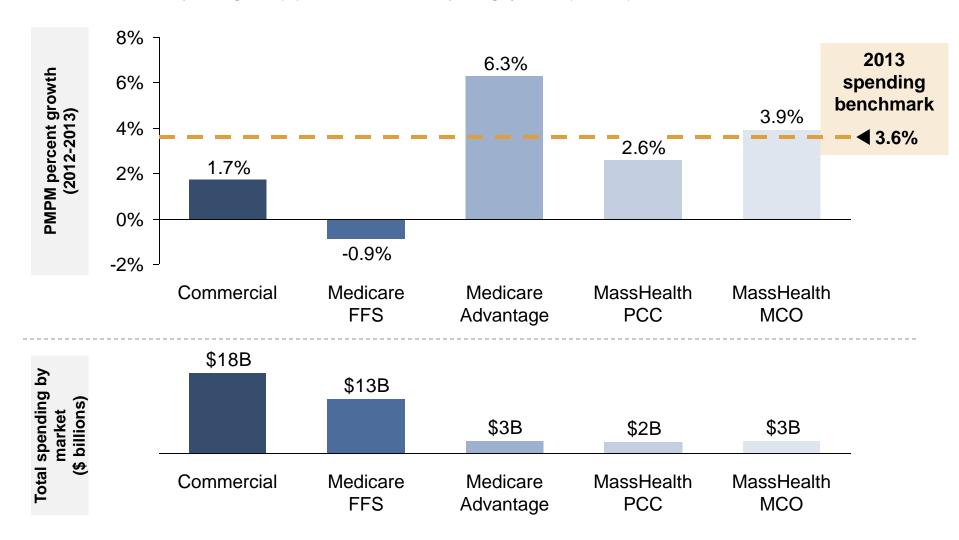
New findings

- Growth in 2013 was 2.3%, below the 3.6% benchmark.
- Low growth in 2013 may be part of an ongoing trend.
 - All payer categories have grown more slowly than the U.S. since 2011.
 - If Massachusetts had grown at U.S. rates between 2009 and 2013, spending would have been roughly ~\$900 million higher in 2013.
- Massachusetts may be able to maintain low spending growth, but future trends are uncertain.

Spending growth between 2012 and 2013 was below the benchmark for most payers

Spending Trends

Per-enrollee annual percent growth (%), 2012-2013, and total spending by market (\$ billions), 2013

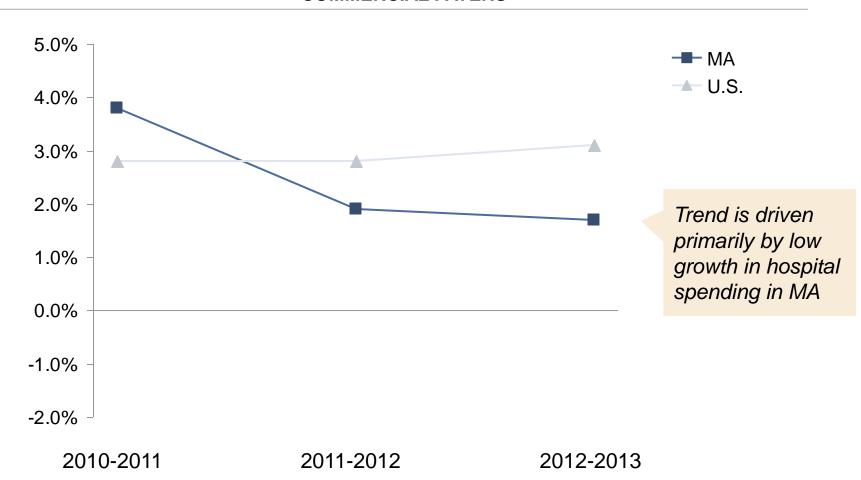


In recent years, Massachusetts commercial spending growth has been lower than the U.S.

Spending Trends

Percentage growth in per member per year spending for commercial enrollees in Massachusetts and in the U.S., 2010 - 2013

COMMERCIAL PAYERS

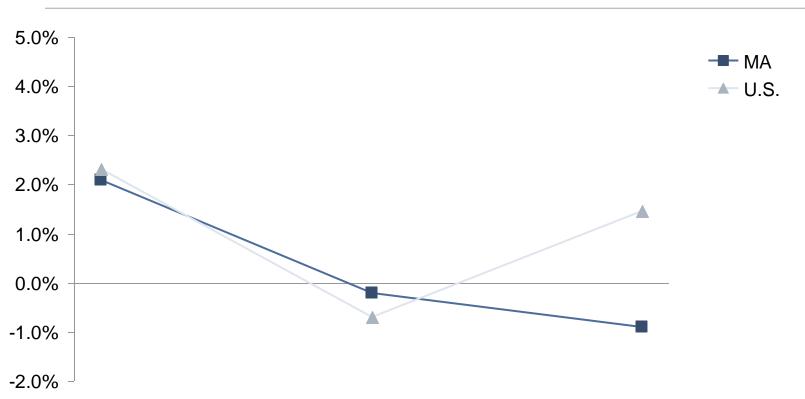


Medicare fee-for-service (FFS) spending growth has also been low and below the U.S. in 2013

Spending Trends

Percentage growth in per beneficiary per year spending for Medicare FFS beneficiaries in Massachusetts and in the US, 2010 - 2013

MEDICARE FEE-FOR-SERVICE



2010-2011

2011-2012

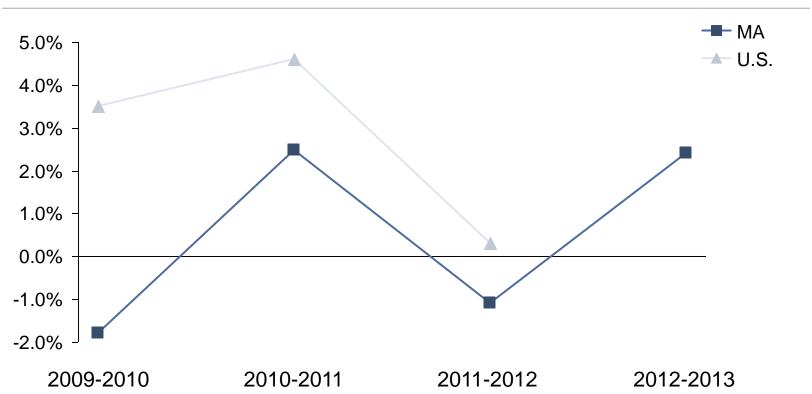
2012-2013

MassHealth spending growth has been consistently below 3% and below U.S. Medicaid spending for comparable populations

Spending Trends

Percentage growth in per enrollee per year spending in Massachusetts and in the US, 2009 - 2013

MASSHEALTH PCC AND MCO



Note: MassHealth growth is based on PCC and MCO plans. US data represent coverage for non-disabled, non-aged children and adult populations as compiled by the Kaiser Family Foundation, derived from the Medicaid Statistical Information System.

Delivery system trends

Previous findings

- Health care delivered in Massachusetts is increasingly concentrated in large systems.
- The percentage of inpatient discharges from the top five hospital systems increased between 2009 and 2012.

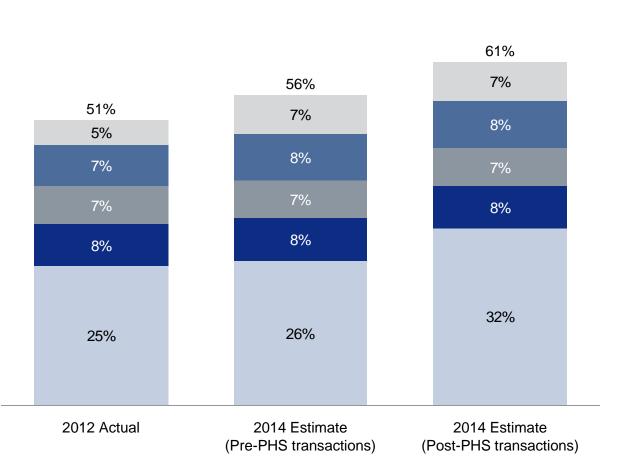
New findings

- The percentage of inpatient discharges from the top five hospital systems increased further between 2009 and 2014.
- The percentage of inpatient discharges from independent (non-AMC-affiliated) community hospitals decreased from 29 percent to an estimated 17 percent between 2009 and 2014.
- Occupancy rates at community hospitals are at approximately 60%, well below those at other hospitals (~75-85%).

A growing percentage of inpatient discharges occur in hospitals that are part of large systems, with potential implications for cost, quality and access

Delivery system trends

Percentage of total inpatient discharges





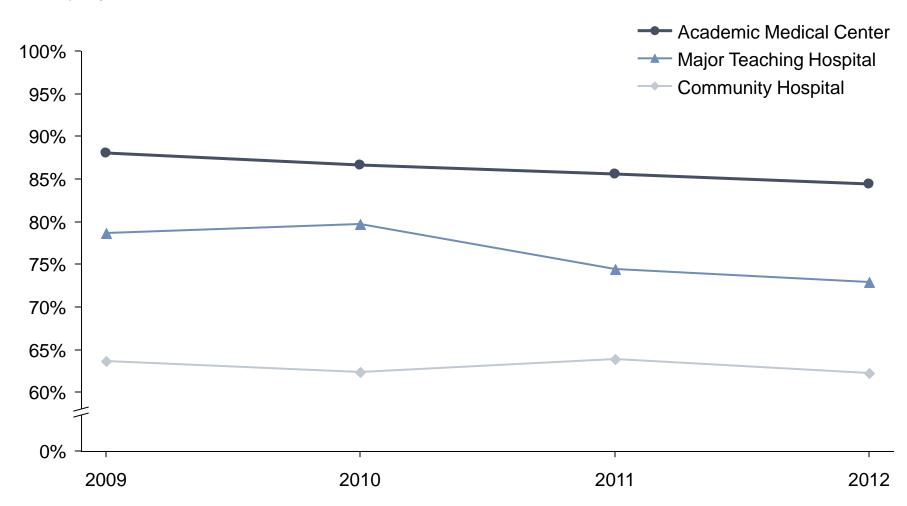
Note: 2014 data not yet available. PHS = Partners HealthCare System. Pre-PHS transactions are based on applying systems established by 2014 (including 2013 Partners HealthCare acquisition of Cooley Dickinson and 2014 Lahey Health acquisition of Winchester hospital) to 2012 inpatient discharge data. Post-PHS transactions estimate includes South Shore Hospital and Hallmark Health hospitals joining Partners HealthCare System. Figures may not add to totals due to rounding.

Source: Center for Health Information and Analysis; HPC analysis

Academic medical centers have higher occupancy rates than community hospitals, and occupancy rates are declining for all hospitals

Delivery system trends

Occupancy rates, FY2009 - FY2012



Note: Rates are calculated by a simple average of hospital occupancy rates due to the lack of raw information for weighted calculation. Based on daily census divided by staff beds.

Future outlook

- The underlying reasons behind recent slower growth are not fully understood.
- Trends to monitor
 - Changes in provider markets
 - Movement away from HMOs
 - New technologies and drugs
 - APM adoption
 - High out of pocket spending for certain populations and services

Select findings from the 2014 Cost Trends Report

Overview of spending and the delivery system

Opportunities to improve quality & efficiency

Progress in key areas

Episodes

Post acute care

Waste

High-cost patients

Behavioral health



Provider variation – spending per episode

Motivation for studying

- Episodes of care cover related spending before and after a procedure.
- Studies of provider practice variation highlight possible opportunities to improve care and/or contain costs.
- Analyzing episodes goes beyond studies of hospital prices to examine spending measures that cross settings.

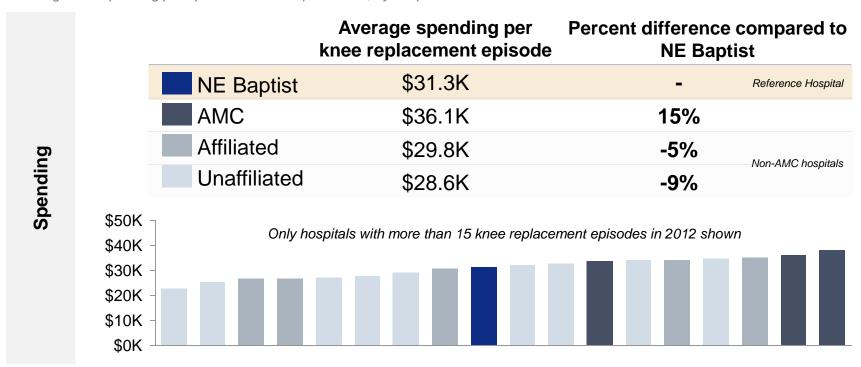
New findings in 2014 Report

- For three common conditions (knee replacement, hip replacement, percutaneous coronary intervention in a low-risk commercial population), hospitals vary widely in health spending across an episode of care, without measurable differences in quality.
 - For each condition, we compared spending at academic medical centers against a benchmark or benchmark group.

Total spending for low-severity knee replacement commercial episodes varies by hospital type, with little relationship to quality

Episodes

Average total spending per episode of knee replacement, by hospital*



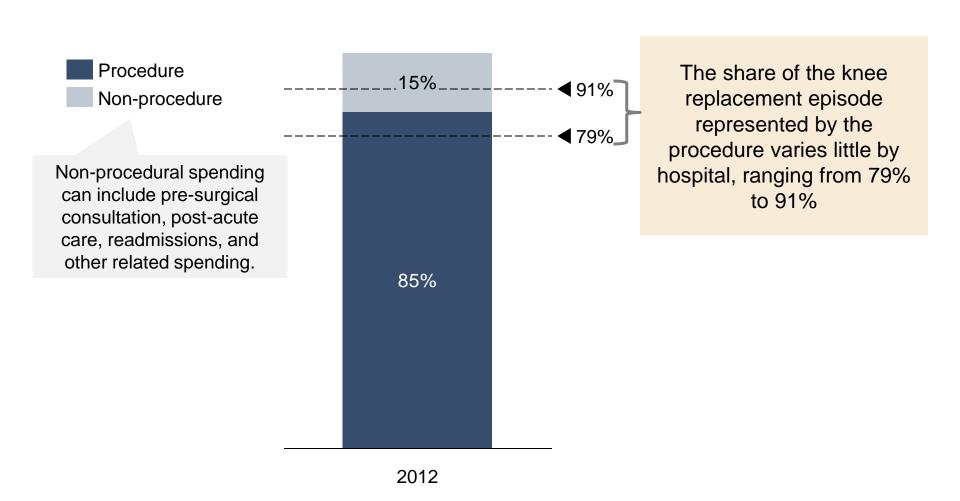
Quality

- Almost all hospitals had **readmissions** and **complications rates no different** statistically from the U.S. average
- Only New England Baptist had statistically better rates, but the difference was small

For all hospitals, the price of the procedure drives episode spending

Episodes

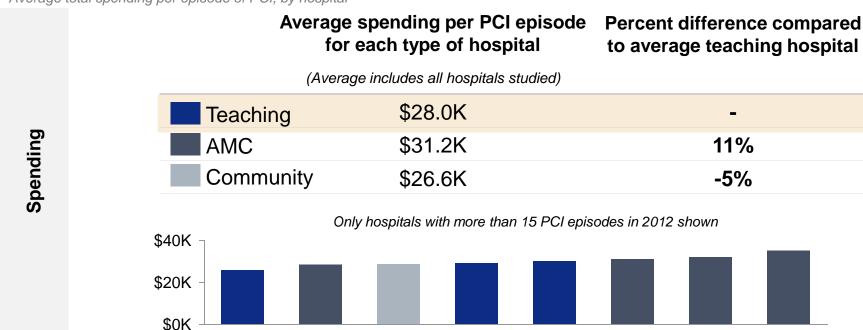
Average percentage of episode spending by payment type



Total spending for percutaneous coronary intervention (PCI) episodes varies by hospital type, with little relationship to quality outcomes

Episodes

Average total spending per episode of PCI, by hospital*



Quality

All hospitals had mortality rates for PCI no different statistically from the MA average (MassDAC)

^{*}Only hospitals with greater than 15 discharges are displayed as bars; average payment shown in table includes all hospitals studied Teaching and Community Hospitals as defined by the Center for Health Information and Analysis Source: HPC Analysis of All-Payer Claims Database, 2012

Post-acute care

Previous findings from 2013 Report & 2014 Supplement

 In 2011, Massachusetts hospitals were 2.1 times as likely as the national average to discharge patients to post-acute care, adjusting for patient characteristics, clinical conditions, and length of stay.

New findings in 2014 Report

- Wide variation exists in discharge practice patterns among Massachusetts hospitals, both in total discharge to post-acute care and the balance between home health and institutional settings (SNF, IRF, LTCH).
- While "right" level of use is not clear, higher use of institutional settings shows need for focus on optimizing care delivery.

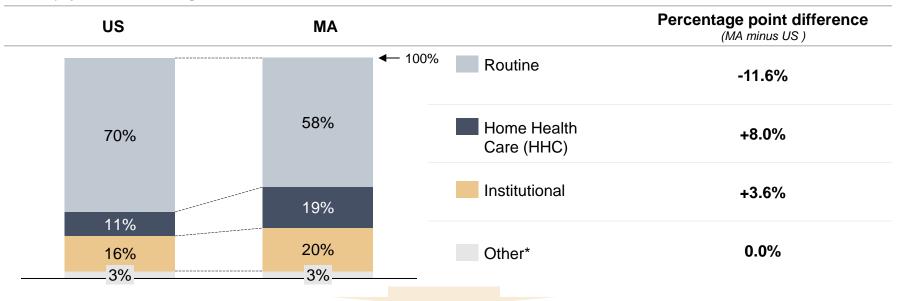
Relative to nation, Massachusetts has higher rates of discharge to home health and to institutional settings

Post-acute care

- MA has higher rates of discharge to home health and to institutional settings (skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals)
- Rates of readmissions and complications are similar in MA and the US

MASSACHUSETTS AND U.S. DISCHARGE DESTINATION

For all payers, for all discharges, 2011



The difference in Medicare spending in MA if MA had the same post-acute care use as in the U.S. overall could total almost \$400 million a year

Institutional: includes skilled nursing facility, short-term hospital, intermediate care facility, another type of facility including inpatient rehabilitation facility and

long-term care hospital.

Source: HPC analysis of HCUP Health Policy Commission | 23

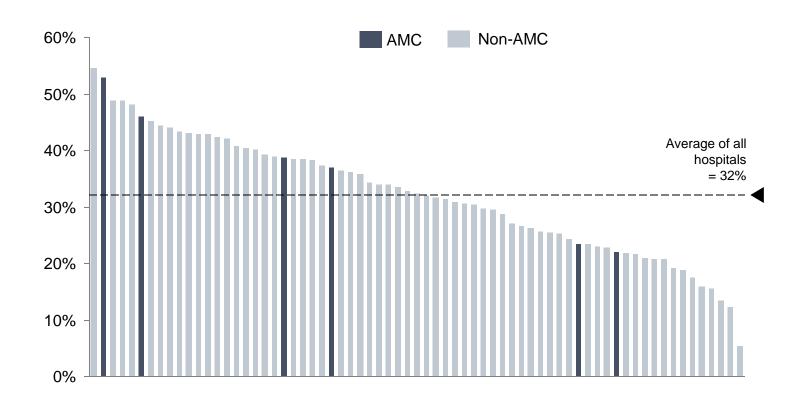
^{*}Other includes Against Medical Advice (AMA); died; alive destination unknown; and not recorded.

Note: Institutional includes Skilled Nursing Facility (SNF); Short-term hospital; Intermediate Care Facility (ICF); and Another Type of Facility.

Within Massachusetts, post-acute care discharge patterns vary widely by hospital, when all discharges are considered

Post-acute care

Share of all discharges sent to any post-acute care setting versus routine discharge, 2012



Note: Share of discharges for each hospital were calculated after adjusting for the following: age, sex, payer group, income, admit source of the patient, and length of stay. Our sample included only all discharged patients that were at least 18 years of age, and had either a discharge to a long-term acute care hospital, inpatient rehabilitation facility, skilled nursing facility, or a discharge to a home healthcare provider. Specialty hospitals were excluded from the display table and the adjusted state rate. "Non-AMC" pertains to community hospitals and major teaching hospitals. "AMC" pertains to those hospitals defined as Academic Medical Centers, based on the Center for Health Information and Analysis' Acute Cohort Hospital Profiles.

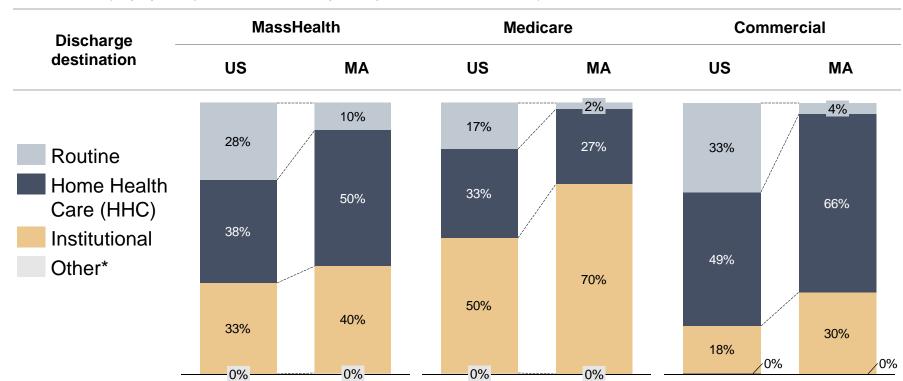
Relative to the nation, for joint replacements, a higher percentage of patients are discharged to institutional settings in Massachusetts

Post-acute care

- Comparison of discharges for specific conditions illustrate practice pattern differences between MA and the U.S.
- MA has higher rates of discharge to institutional settings for patients with joint replacements, across all payers

HCUP MASSACHUSETTS AND U.S. DISCHARGE DESTINATION FOR JOINT REPLACEMENT, BY PAYER

For DRG 470 (major joint replacement without major complications or comorbidities), 2011



^{*}Other includes Against Medical Advice (AMA); died; alive destination unknown; and not recorded.

Institutional: includes skilled nursing facility, short-term hospital, intermediate care facility, another type of facility including inpatient rehabilitation facility and long-term care hospital.

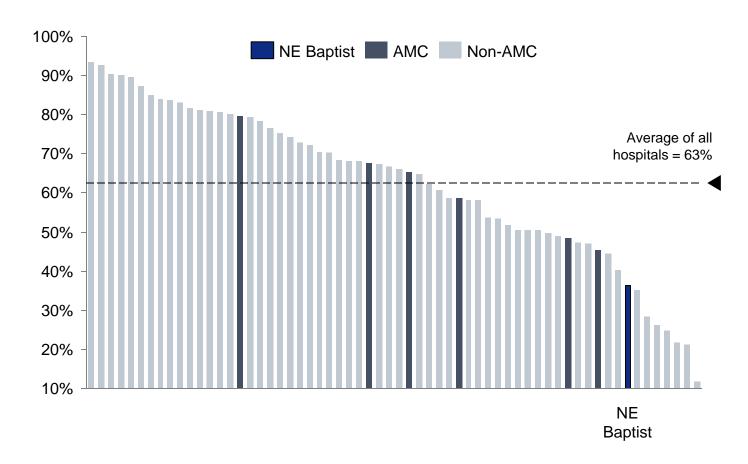
Source: HPC analysis of HCUP; Massachusetts Health Data Consortium

Note: Institutional includes Skilled Nursing Facility (SNF); Short-term hospital; Intermediate Care Facility (ICF); and Another Type of Facility.

Within Massachusetts, for joint replacement, the percentage of patients discharged to institutional settings varies widely

Post-acute care

Share of all post-acute care discharges sent to an institutional setting for DRG 470 (major joint replacement w/o MCC), 2012



Note: Probabilities for each hospital were calculated after adjusting for the following: age, sex, payer group, income, admit source of the patient, and length of stay. Our sample only all discharged patients that were at least 18 years of age, and had either a discharge to a long-term acute care hospital, inpatient rehabilitation facility, skilled nursing facility, or a discharge to a home healthcare provider. Specialty hospitals, except for New England Baptist, were excluded from the display table and in calculating the Adjusted State Rate. "Non-AMC" pertains to community hospitals and major teaching hospitals. "AMC" pertains to those hospitals defined as Academic Medical Centers, based on the Center for Health Information and Analysis' Acute Cohort Hospital Profiles.

Wasteful spending

Previous findings from 2013 Report & 2014 Supplement

 An estimated 21 to 39 percent of healthcare spending in Massachusetts can be considered wasteful

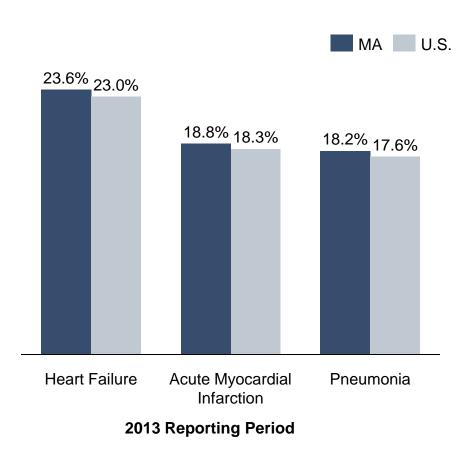
New findings in 2014 Report

- Measures of readmissions and avoidable emergency department (ED) visits continue to highlight areas for improvement in care delivery throughout the system.
- Massachusetts compares poorly to the U.S. overall on readmission rates.
- Almost half of ED visits in Massachusetts were preventable in 2012.

Massachusetts compares poorly to the U.S. overall on Medicare readmission rates

Waste

Risk-adjusted readmission rates, 2013 CMS reporting period

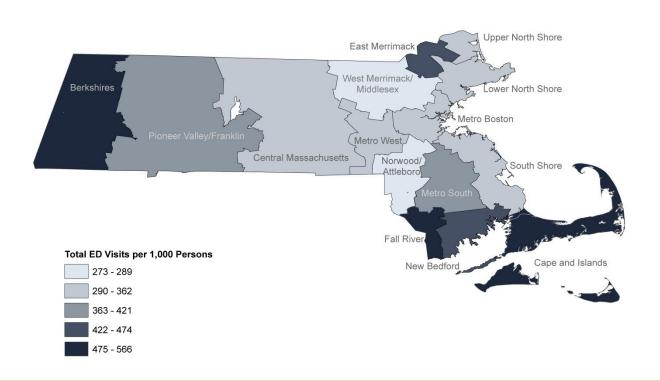


- MA ranks 46 out of 50 states and D.C. on readmission rates
- 80 percent of MA hospitals face CMS readmission penalties this year
- MA has the 8th highest average penalty in the U.S.
 - Average 0.8 percent cut to payments for all Medicare discharges

Total outpatient ED visits vary widely by region

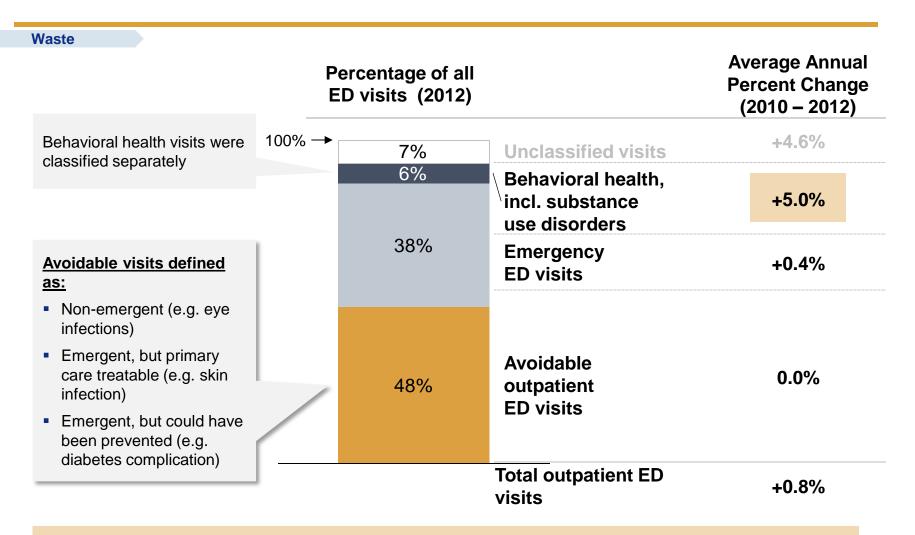
Waste

Total ED visits per 1,000 persons, 2012



The ED visits per 1,000 persons in Fall River (highest) is double that of West Merrimack/Middlesex (lowest)

Avoidable ED visits make up about half of all ED visits, across all regions



Share of all ED visits considered avoidable was fairly constant across all MA regions, ranging from 46 percent to 52 percent

High-cost patients

Previous findings from 2013 Report & 2014 Supplement

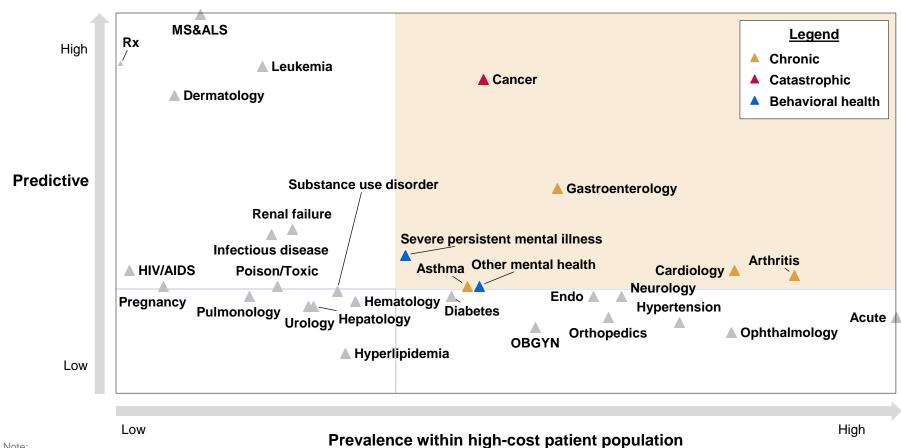
 Five percent of commercial patients account for 45 percent of total commercial medical spending.

New findings in 2014 Report

- Patients with high total medical spending for three consecutive years represent an important group to understand.
- Results reinforced a focus on behavioral health and managing chronic conditions.

For commercially insured persistent high-cost patients, chronic conditions and behavioral health conditions are predictive and prevalent

High-cost patients



Note:

- (A) Long-term high cost patients (HCP) are defined as the 5% of patients with highest claims-based medical expenditures (excluding pharmacy spending) over three consecutive years (2010-2012).
- (B) The sample was limited to patients who had full years of enrollment for 2010-2012 and costs greater than or equal to \$0 in each year. Figures do not capture pharmacy costs, payments outside the claims system, Medicare cost-sharing, or end-of-life care for patients who died during the study period.
- (C) Commercial adult population is limited to ages 19-64 in 2010 base year
- (D) Predictive is defined as having an odds ratio of at least 2.0; prevalent is defined as having at least 15% of high cost commercial patients with a given medical condition

Behavioral health

Previous findings from 2013 Report & 2014 Supplement

 Patients with behavioral health conditions spend more for medical conditions particularly if both mental health and substance use disorders are present.

New findings in 2014 Report

- HPC research identifies spending differentials between patients with and without behavioral health conditions for specific medical conditions.
- Addressing current data challenges is essential for the success of any state strategy on behavioral health.

Spending differential between patients with and without behavioral health conditions is pronounced for many medical conditions

Behavioral health

Average claims based medical expenditure per episode of care for select medical conditions with high aggregate difference (calculated as number of cases for people with at least 1 behavioral health condition* average difference in spending per episode of care) between people with and without behavioral health (BH) conditions, among patients with at least one chronic medical condition, for top 3 commercial payers, 2012

Medical conditions	Aggregate difference	Number of episodes in people with at least 1 BH condition	Difference in spending per episode of care between people with and without BH conditions
Localized joint degeneration	\$29.3M	52.3K	\$0.6K
Ischemic heart disease	\$20.8M	7.0K	\$3.0K
Obesity	\$19.5M	14.3K	\$1.4K
Cerebral vascular disease	\$18.9M	3.0K	\$6.3K
Leukemia	\$16.1M	0.3K	\$55.3K
Total for 5 conditions with highest aggregate difference	\$104.6M	76.9K	
Total All Types of Conditions	\$395.8M	908.8K	

- Integration of appropriate and timely treatment for patients with behavioral health conditions is critical to promote population health and contain costs.
- Better data is essential to develop and implement a state strategy for behavioral health.

Plan), 2012

^{*}Presence of behavioral health and chronic medical conditions determined by episode risk flags from Optum (see technical appendix for more information)

Note: ED = Emergency Department

Source: HPC analysis of Massachusetts All Payers Claims Database (payers include Blue Cross Blue Shield, Harvard Pilgrim Health Care, and Tufts Health

Opportunities to improve quality and efficiency

Episodes

- Healthcare spending for episodes of care varies driven by procedure price– without clear difference in quality outcomes
- Opportunities exist to reduce spending by shifting site of care or by increasing efficiency / reducing price within existing settings

Post-acute care

- While the "right" levels of PAC use are not clear, variation between MA and the U.S.- and between MA hospitals- shows need for focus on optimal care
- Use of evidence-based discharge planning tools and sharing of best practices, possibly including leverage of new Medicare data requirements, can help hospitals optimize care for patients following discharge

Waste

- Metrics for progress should be tracked
- Solutions should involve cross-sector and community collaboration

High-cost patients

 Results emphasize a focus on behavioral health and managing chronic conditions among persistently high-cost patients

Behavioral health

- Integration of appropriate and timely treatment for patients with behavioral health conditions is critical to promote population health and contain costs
- Improving behavioral health data capabilities is essential for success of any state strategy to improve care

Aligned financial incentives through APMs, including episode-based payments, can encourage value and quality

Select findings from the 2014 Cost Trends Report

Overview of spending and the delivery system

Opportunities to improve quality & efficiency



Alternative payment methods

Demand-side incentives

Data



Alternative payment methods

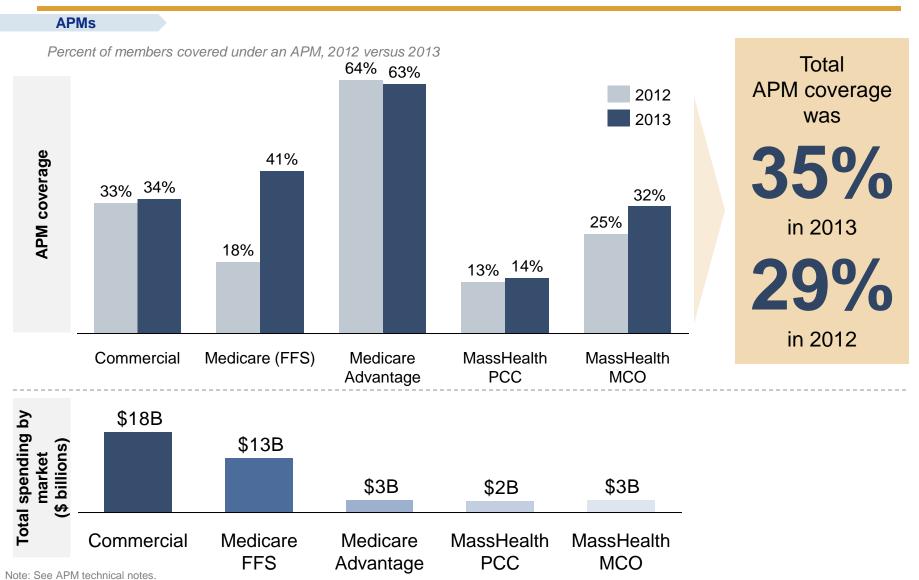
Previous findings

 Alternative payment methods offer incentives that support value and reward providers for delivering high-quality care.

New findings

- The percentage of Massachusetts residents covered by APMs increased from 29 percent in 2012 to 35 percent in 2013.
- With strong payer and provider efforts in three specific areas, APMs could cover 55 percent of members in 2016.
- There are many other opportunities exist to expand APM coverage and strengthen implementation.

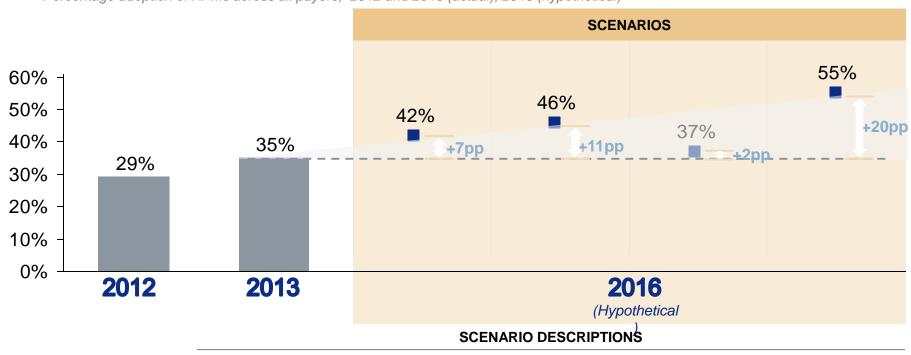
Between 2012 and 2013, APM coverage was stable in the commercial sector, but grew in traditional Medicare and in MassHealth MCOs



With strong payer and provider efforts in three specific areas, APMs could cover 55 percent of members in 2016

APMs

Percentage adoption of APMs across all payers, 2012 and 2013 (actual), 2016 (hypothetical)



	НМО	PPO	ACO	Additive
Assumptions	All payers expand APMS in HMOs to close 2/3 of gap between 2013 coverage and 90% (BCBS rate)	All payers expand APMs in PPOs to half of their projected HMO rate	MassHealth expands APMs (via ACO) to close 1/3 of gap between 2014 coverage and 100%.	HMO +PPO +ACO
Projected impact	+7pp	+11pp	+2pp	+20pp

Note: See APM technical notes.

Many other opportunities exist to expand APM coverage and increase effectiveness

APMs

- 1 Align quality measures and other technical elements across payers
- 2 Ensure providers have the data they need to succeed
- 3 Offer targeted technical support to providers
- 4 Design episode-based payment for selected conditions
- 5 Continued evaluation to determine which APMs are most effective in creating intended results

Demand-side incentives

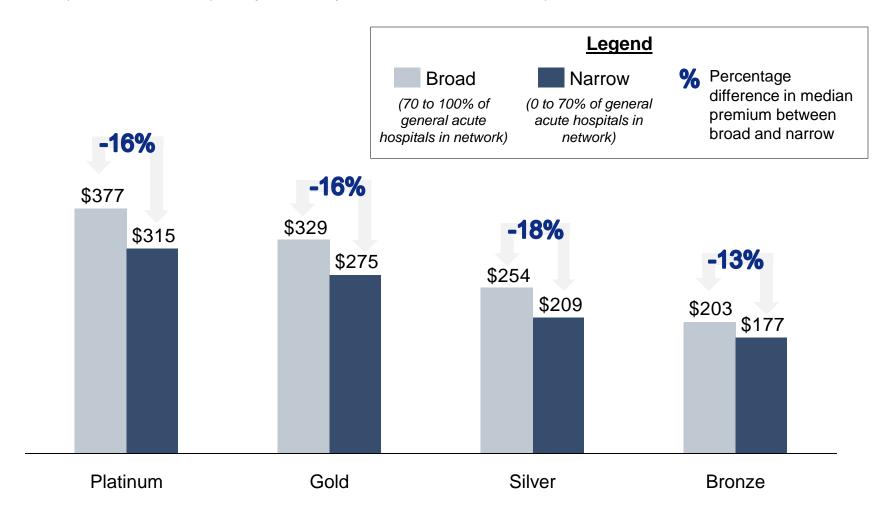
Findings

- Well-designed insurance products offer incentives to employers and consumers to support value and patient-centered care, e.g.
 - Lower co-payments for high-value services
 - Reference pricing
 - Tiered and limited networks
- Adoption of limited network products is low in fully-insured commercial markets, but substantial in the GIC, which offers wide plan choice and quality information for employees.
- Chapter 224 required payers and providers to publish price information for consumers – continued progress is needed.

Compared to broad networks, narrower networks have lower premiums

Demand-side incentives

Median premium of Connector plans by metal tier by narrow and broad network, and percent difference, 2014



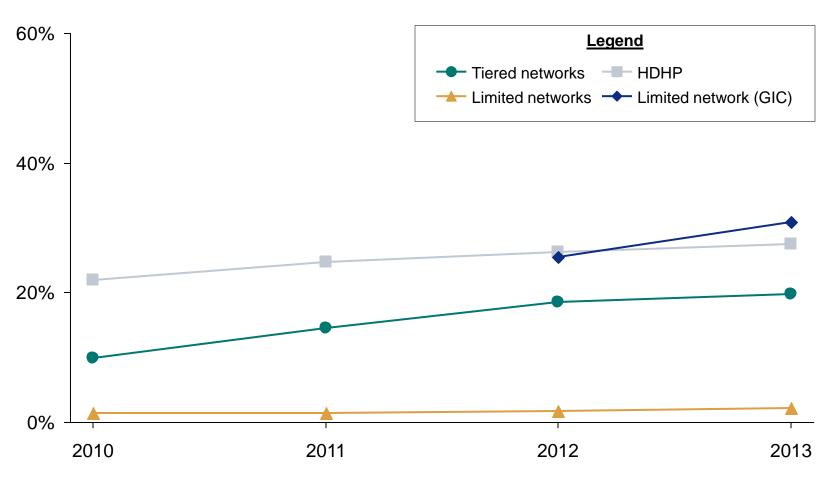
Note: Narrow signifies either a narrow or an ultra-narrow network. Bars show median premium by network type within a metal tier. Network types are defined based on inclusion of acute care hospitals.

Source: Massachusetts Health Connector, 2014

Enrollment in tiered network and high-deductible plans is growing slowly in the fully-insured commercial market. Enrollment in limited network plans is very low, but high within the GIC

Demand-side incentives

Percentage adoption by network type across all commercial payers and GIC, 2010 - 2013



^{*}Tiered network product as defined by payer. Some variation may exist in included product lines, for instance, between products with hospital tiering versus Primary Care Physician (PCP)/specialist tiering only (included for Harvard Pilgrim Health Care (HPHC)). Blue Cross Blue Shield (BCBS) and Tufts Health Plan (THP) did not include Group Insurance Commission (GIC) members in commercial tiered product enrollment. Aetna includes Designated Provider Organization (DPO) in tiered network enrollment.

Note: Enrollment in THP limited network products does not include enrollment in commercial GIC limited network products Source: Pre-filed Testimony submitted to the HPC for the 2014 Cost Trends Hearings

The importance of transparency and data surface throughout HPC work

Priority areas for ongoing data efforts

(Based on 2013 and 2014 reports.)

- For many purposes, including coordinated state strategy for behavioral health stronger behavioral health data
- For providers to succeed in APMs
 - Real-time data for care coordination
 - Timely, complete reports on spending and utilization
 - Cross-payer alignment in key areas (quality measures)
- For employers and consumers to make informed choices enhanced price transparency tools, that include quality information
- For transparency and accountability
 - APCD (with validated data from MassHealth)
 - TME measures for PPO populations
 - Measures of spending growth for hospitals, specialty providers, and other providers.
 - Improved data from payers on APM coverage

Agenda

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 - Select findings concerning spending trends and underlying factors from the 2014 Cost Trends Report
- Board discussion
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 - Recommendations for inclusion in the final report



Board discussion

<u>Presentation themes / potential areas for recommendations</u>

- Understanding MA spending trends relative to the benchmark and the U.S.
- Shifting care to efficient and community settings
- Improving care for patients with behavioral health conditions
- Advancing alternative payment methods, including episodebased payment
- Engaging employers and consumers in value-oriented choices for care and coverage
- Enhancing transparency, accountability and data